



PATENT
Docket No. 1982-0149P

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Hiroshi OGAWA CONF.: 5103
APPLN. NO.: 09/560,819 GROUP: 2879
FILED: April 28, 2000 EXAMINER: S. Roy
FOR: RADIATION IMAGE CONVERSION PANEL

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DECLARATION UNDER 37 C.F.R. § 1.132

Assistant Commissioner of Patents
Washington, DC 20231

Sir:

I, Hiroshi Ogawa, inventor of the present invention, do declare and say as follows:

1. I reside in Kanagawa, Japan.
2. I received a Bachelor of Science degree from Chiba University, Faculty of Engineering, Synthetic Chemistry Department, in March, 1972.
3. I am presently employed by Fuji Photo Film Co., Ltd., and have been since April, 1972.
4. I was involved in the development of magnetic tapes from April 1972 to December 1995. In addition, I was involved in the

improvement of magnetic recording layer of Advanced Photo System film from December 1995 to April 1998. Further, I was involved in the development of Imaging Plates from April 1998 to May 2002. I am a part of the technical staff for producing Imaging Plates since May 2002.

5. The results of additional comparative experiments are shown below, together with the results for Example 1 of the present invention.

TABLE 1

	Upper-layer phosphor sheet			Lower-layer phosphor sheet		
	Phosphor grain size (μm)	Amount of binder (parts)	Thickness (μm)	Phosphor grain size (μm)	Amount of binder (parts)	Thickness (μm)
Ex. 1	8	60	140	8	50	140
Comp. Ex. 3	8	50	280	---	---	--

TABLE 2

	Radiation image conversion panel	
	Light emission quantity (%)	Graininess noise ($\times 10^{-2}$)
Ex. 1	100	0.27
Comp. Ex. 3	93	0.35

6. In the comparative experiment, providing Comparative Example 3, a thickness of the single-layered phosphor disclosed by Arakawa et al. (U.S. Patent Number 4,574,102) was increased to

correspond to the total thickness of Example 1. As can be seen from Table 2, Example 1 resulted in an unexpectedly higher emission quantity and an unexpectedly lower graininess noise compared to Comparative Example 3. Thus, the present experiment demonstrates that the graininess noise can be reduced by a multi-layered phosphor, in which the amount of a binder contained in an upper-layer phosphor sheet is made larger, without decreasing the quantity of light emitted from the phosphor. These unexpected results of the present invention are not observed in the single-layered phosphor of the Arakawa et al. reference.

7. I hereby declare that all statements made herein of my own knowledge are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

BY Hiroshi Ogawa
Hiroshi Ogawa

July 25, 2002
Date